What is claimed is:

1. A method of delivering an antigen to an Class I MHC receptor to induce immunity against the antigen in a subject having a disease which comprises:

a) filling particles with the antigen and ATP resulting in an antigen- and ATP-filled particles (Ag/ATP-filled particles);

b) coating the Ag/ATP-filled particles of step (a) with a ligand for an antigen presenting cell resulting in a ligand-coated Ag/ATP-filled particles;

c) incubating the ligand-coated Ag/ATP-filled particles of step (b) with isolated ligand-binding antigen presenting cells (APCs) under conditions permitting the ligand-binding APCs to bind to the ligand-coated Ag/ATP-filled particles and APC phagolysosomes to ingest the ligand-coated Ag/ATP-filled particles to facilitate transfer of the ingested antigen from the phagolysosomes into cytoplasm such that the antigen is delivered to a Class I MHC receptor and is expressed on the surface of the APCs (Ag-APCs); and

d) administering the antigen presenting cells (APCs) of step (c) to a subject having the disease so as induce Class I MHC presentation and elicit cytotoxic T-lymphocytes against the antigen, thereby inducing immunity against the antigen.

2. The method of claim 1, wherein the particle is a type O red blood cell ghost.

3. The method of claim 1, wherein the particle is a liposome.

4. The method of claim 1, wherein the ligand is selected from the group consisting of an immunoglobulin (IgG), complement component C3b, complement component C3bi, maleic anhydride, an oxidized lipid, a sugar, and a polyanion.

5. The method of claim 1, wherein the antigen presenting cell is selected from the group consisting of a dendritic cell, a Langerhans cell, a monocyte, a mononuclear phagocyte, a macrophage, a Kupfer cell, a microglial cell, an osteoclast, and a bone marrow-derived leukocyte.

6. The method of claim 1, wherein the antigen is a purified antigen.

7. The method of claim 6, wherein the antigen is a cancer cell antigen, a bacterial antigen or a viral antigen.

8. The method of claim 1, wherein the antigen is a crude cell extract.

9. The method of claim 8, wherein the antigen is a cancer cell antigen, a bacterial antigen or a viral

antigen.

10. The method of claim 6, wherein the antigen is selected from the group consisting of a peptide, a carbohydrate, a lipid, a glycoprotein, a glycolipid and a lipoprotein.

11. The method of claim 1 further comprising delivering at least one stimulatory cytokine with the antigen to the cytoplasmic matrix of an antigen presenting cell which comprises in step (a) filling the particle with the stimulatory cytokine.

12. The method of claim 11, wherein the cytokine is IL-12, G-CSF, IL-4, GM-CSF or interferon gamma.

13. The method of claim 1, wherein the immunity induced is against a bacterial or viral antigen.

14. The method of claim 1, wherein the immunity induced is against a cancerous tumor.

15. The method of claim 1, wherein the disease is a bacterial infection or a viral infection.

16. The method of claim 1, wherein the disease is cancer.

17. A method of delivering an antigen to an Class I MHC receptor to induce immunity against the antigen in a subject having a disease which comprises:

a) filling particles with the antigen and ATP resulting in an antigen- and ATP-filled particles (Ag/ATP-filled particles);

b) coating the Ag/ATP-filled particles of step (a) with a ligand for an antigen presenting cell resulting in a ligand-coated Ag/ATP-filled particles;

c) incubating the ligand-coated Ag/ATP-filled particles of step (b) with isolated ligand-binding antigen presenting cells (APCs) under conditions permitting the ligand-binding APCs to bind to the ligand-coated Ag/ATP-filled particles and APC phagolysosomes to ingest the ligand-coated Ag/ATP-filled particles to facilitate transfer of the ingested antigen from the phagolysosomes into cytoplasm such that the antigen is delivered to a Class I MHC receptor and is expressed on the surface of the APCs (Ag-APCs);

d) incubating the Ag-APCs of step (c) with lymphocytes previously removed from the subject having the disease; and

e) administering the incubated lymphocytes of step (d) to the subject so to induce immunity against the antigen in the subject.

18. The method of claim 17, wherein the particle is a type O red blood cell ghost.

19. The method of claim 17, wherein the particle is a liposome.

20. The method of claim 17, wherein the ligand is selected from the group consisting of an immunoglobulin (IgG), complement component C3b, complement component C3bi, maleic anhydride, an oxidized lipid, a sugar, and a polyanion.

21. The method of claim 17, wherein the antigen presenting cell is selected from the group consisting of a dendritic cell, a Langerhans cell, a monocyte, a mononuclear phagocyte, a macrophage, a Kupfer cell, a microglial cell, an osteoclast, and a bone marrow-derived leukocyte.

22. The method of claim 17, wherein the antigen is a purified antigen.

23. The method of claim 22, wherein the antigen is a cancer cell antigen, a bacterial antigen or a viral antigen.

24. The method of claim 17, wherein the antigen is a crude cell extract.

25. The method of claim 24, wherein the antigen is a cancer cell antigen, a bacterial antigen or a viral antigen.

26. The method of claim 22, wherein the antigen is selected from the group consisting of a peptide, a carbohydrate, a lipid, a glycoprotein, a glycolipid

and a lipoprotein.

27. The method of claim 17 further comprising delivering at least one stimulatory cytokine with the antigen to the cytoplasmic matrix of an antigen presenting cell which comprises in step (a) filling the particle with the stimulatory cytokine.

28. The method of claim 27, wherein the cytokine is IL-12, G-CSF, IL-4, GM-CSF or interferon gamma.

29. The method of claim 17, wherein the immunity induced is against a bacterial or viral antigen.

30. The method of claim 17, wherein the immunity induced is against a cancerous tumor.

31. The method of claim 17, wherein the disease is a bacterial infection or a viral infection.

32. The method of claim 17, wherein the disease is cancer.

33. A method of delivering an antigen to an Class II MHC receptor to induce immunity against the antigen in a subject having a disease which comprises:

a) filling particles with the antigen and ATP resulting in an antigen- and ATP-filled particles (Ag/ATP-filled particles);

b) coating the Ag/ATP-filled particles of step (a) with a ligand for an antigen presenting

cell resulting in a ligand-coated Ag/ATP-filled particles;

c) incubating the ligand-coated Ag/ATP-filled particles of step (b) with isolated ligand-binding antigen presenting cells (APCs) under conditions permitting the ligand-binding APCs to bind to the ligand-coated Ag/ATP-filled particles and APC phagolysosomes to ingest the ligand-coated Ag/ATP-filled particles to facilitate transfer of the ingested antigen from the phagolysosomes into cytoplasm such that the antigen is delivered to a Class II MHC receptor and is expressed on the surface of the APCs (Ag-APCs); and

d) administering the antigen presenting cells (APCs) of step (c) to a subject having the disease so as induce Class II MHC presentation and elicit helper T-lymphocytes against the antigen, thereby inducing immunity against the antigen.

34. The method of claim 33, wherein the particle is a type O red blood cell ghost.

35. The method of claim 33, wherein the particle is a liposome.

36. The method of claim 33, wherein the ligand is selected from the group consisting of an immunoglobulin (IgG), complement component C3b, complement component C3bi, maleic anhydride, an

oxidized lipid, a sugar, and a polyanion.

37. The method of claim 33, wherein the antigen presenting cell is selected from the group consisting of a dendritic cell, a Langerhans cell, a monocyte, a mononuclear phagocyte, a macrophage, a Kupfer cell, a microglial cell, an osteoclast, and a bone marrow-derived leukocyte.

38. The method of claim 33, wherein the antigen is a purified antigen.

39. The method of claim 38, wherein the antigen is a cancer cell antigen, a bacterial antigen or a viral antigen.

40. The method of claim 33, wherein the antigen is a crude cell extract.

41. The method of claim 40, wherein the antigen is a cancer cell antigen, a bacterial antigen or a viral antigen.

42. The method of claim 38, wherein the antigen is selected from the group consisting of a peptide, a carbohydrate, a lipid, a glycoprotein, a glycolipid and a lipoprotein.

43. The method of claim 33 further comprising delivering at least one stimulatory cytokine with the antigen to the cytoplasmic matrix of an antigen presenting

cell which comprises in step (a) filling the particle with the stimulatory cytokine.

44. The method of claim 43, wherein the cytokine is IL-12, G-CSF, IL-4, GM-CSF or interferon gamma.

45. The method of claim 33, wherein the immunity induced is against a bacterial or viral antigen.

46. The method of claim 33, wherein the immunity induced is against a cancerous tumor.

47. The method of claim 33, wherein the disease is a bacterial infection or a viral infection.

48. The method of claim 33, wherein the disease is cancer.

49. A method of delivering an antigen to an Class II MHC receptor to induce immunity against the antigen in a subject having a disease which comprises:

a) filling particles with the antigen and ATP resulting in an antigen- and ATP-filled particles (Ag/ATP-filled particles);

b) coating the Ag/ATP-filled particles of step (a) with a ligand for an antigen presenting cell resulting in a ligand-coated Ag/ATP-filled particles;

c) incubating the ligand-coated Ag/ATP-filled particles of step (b) with isolated ligand-binding antigen presenting cells (APCs) under

conditions permitting the ligand-binding APCs to bind to the ligand-coated Ag/ATP-filled particles and APC phagolysosomes to ingest the ligand-coated Ag/ATP-filled particles to facilitate transfer of the ingested antigen from the phagolysosomes into cytoplasm such that the antigen is delivered to a Class I MHC receptor and is expressed on the surface of the APCs (Ag-APCs);

d) incubating the Ag-APCs of step (c) with lymphocytes previously removed from the subject having the disease; and

e) administering the incubated lymphocytes of step (d) to the subject so as induce Class II MHC presentation and elicit helper T-lymphocytes so to induce immunity against the antigen in the subject.

50. The method of claim 49, wherein the particle is a type O red blood cell ghost.

51. The method of claim 49, wherein the particle is a liposome.

52. The method of claim 49, wherein the ligand is selected from the group consisting of an immunoglobulin (IgG), complement component C3b, complement component C3bi, maleic anhydride, an oxidized lipid, a sugar, and a polyanion.

53. The method of claim 49, wherein the antigen

presenting cell is selected from the group consisting of a dendritic cell, a Langerhans cell, a monocyte, a mononuclear phagocyte, a macrophage, a Kupfer cell, a microglial cell, an osteoclast, and a bone marrow-derived leukocyte.

54. The method of claim 49, wherein the antigen is a purified antigen.

55. The method of claim 52, wherein the antigen is a cancer cell antigen, a bacterial antigen or a viral antigen.

56. The method of claim 49, wherein the antigen is a crude cell extract.

57. The method of claim 56, wherein the antigen is a cancer cell antigen, a bacterial antigen or a viral antigen.

58. The method of claim 49, wherein the antigen is selected from the group consisting of a peptide, a carbohydrate, a lipid, a glycoprotein, a glycolipid and a lipoprotein.

59. The method of claim 49, further comprising delivering at least one stimulatory cytokine with the antigen to the cytoplasmic matrix of an antigen presenting cell which comprises in step (a) filling the particle with the stimulatory cytokine.

60. The method of claim 59, wherein the cytokine is IL-12, G-CSF, IL-4, GM-CSF or interferon gamma.

61. The method of claim 49, wherein the immunity induced is against a bacterial or viral antigen.

62. The method of claim 49, wherein the immunity induced is against a cancerous tumor.

63. The method of claim 49, wherein the disease is a bacterial infection or a viral infection.

64. The method of claim 49, wherein the disease is cancer.

65. A method of delivering an antigen to an Class II MHC receptor to supress immunity against the antigen in a subject having a disease which comprises:

a) filling particles with the antigen and ATP resulting in an antigen- and ATP-filled particles (Ag/ATP-filled particles);

b) coating the Ag/ATP-filled particles of step (a) with a ligand for an antigen presenting cell resulting in a ligand-coated Ag/ATP-filled particles;

c) incubating the ligand-coated Ag/ATP-filled particles of step (b) with isolated ligand-binding antigen presenting cells (APCs) under conditions permitting the ligand-binding APCs to bind to the ligand-coated Ag/ATP-filled particles and APC phagolysosomes to ingest the

ligand-coated Ag/ATP-filled particles to facilitate transfer of the ingested antigen from the phagolysosomes into cytoplasm such that the antigen is delivered to a Class II MHC receptor and is expressed on the surface of the APCs (Ag-APCs);

d) incubating the Ag-APCs of step (c) with lymphocytes previously removed from the subject having the disease; and

e) administering the incubated lymphocytes of step (d) to the subject so as induce Class II MHC presentation and elicit suppressor T-lymphocytes so to supress immunity against the antigen in the subject.

66. The method of claim 65, wherein the particle is a type O red blood cell ghost.

67. The method of claim 65, wherein the particle is a liposome.

68. The method of claim 65, wherein the ligand is selected from the group consisting of an immunoglobulin (IgG), complement component C3b, complement component C3bi, maleic anhydride, an oxidized lipid, a sugar, and a polyanion.

69. The method of claim 65, wherein the antigen presenting cell is selected from the group consisting of a dendritic cell, a Langerhans cell, a monocyte, a mononuclear phagocyte, a macrophage,

a Kupfer cell, a microglial cell, an osteoclast, and a bone marrow-derived leukocyte.

70. The method of claim 65, wherein the antigen is a purified antigen.

71. The method of claim 70, wherein the antigen is an antigen of a transplant organ.

72. The method of claim 71, wherein the transplant organ antigen is allogeneic antigen, a syngeneic antigen, or a xenogenic antigen.

73. The method of claim 65, wherein the antigen is a crude cell extract.

74. The method of claim 73, wherein the antigen is an antigen of a transplant organ.

75. The method of claim 74, wherein the transplant organ antigen is allogeneic antigen, a syngeneic antigen, or a xenogenic antigen.

76. The method of claim 65, wherein the antigen is selected from the group consisting of a peptide, a carbohydrate, a lipid, a glycoprotein, a glycolipid and a lipoprotein.

77. The method of claim 65, further comprising delivering at least one stimulatory cytokine with the antigen to the cytoplasmic matrix of an antigen

presenting cell which comprises in step (a) filling the particle with the stimulatory cytokine.

78. The method of claim 77, wherein the cytokine is IL-12, G-CSF, IL-4, GM-CSF or interferon gamma.

79. The method of claim 65, wherein the immunity suppressed is immunity against a transplanted organ or tissue.

80. The method of claim 65, wherein the immunity suppressed is immunity against organs of the subject.

81. The method of claim 65, wherein the disease is an autoimmune disease or rejection of a transplanted organ or tissue.

82. A method of delivering an antigen to an Class I MHC receptor to supress immunity against the antigen in a subject having a disease which comprises:

a) filling particles with the antigen and ATP resulting in an antigen- and ATP-filled particles (Ag/ATP-filled particles);

b) coating the Ag/ATP-filled particles of step (a) with a ligand for an antigen presenting cell resulting in a ligand-coated Ag/ATP-filled particles;

c) incubating the ligand-coated Ag/ATP-filled particles of step (b) with isolated ligand-binding antigen presenting cells (APCs) under

conditions permitting the ligand-binding APCs to bind to the ligand-coated Ag/ATP-filled particles and APC phagolysosomes to ingest the ligand-coated Ag/ATP-filled particles to facilitate transfer of the ingested antigen from the phagolysosomes into cytoplasm such that the antigen is delivered to a Class I MHC receptor and is expressed on the surface of the APCs (Ag-APCs);

d) incubating the Ag-APCs of step (c) with lymphocytes previously removed from the subject having the disease; and

e) administering the incubated lymphocytes of step (d) to the subject so as induce Class I MHC presentation and elicit suppressor T-lymphocytes so to supress immunity against the antigen in the subject.

83. The method of claim 82, wherein the particle is a type O red blood cell ghost.

84. The method of claim 82, wherein the particle is a liposome.

85. The method of claim 82, wherein the ligand is selected from the group consisting of an immunoglobulin (IgG), complement component C3b, complement component C3bi, maleic anhydride, an oxidized lipid, a sugar, and a polyanion.

86. The method of claim 82, wherein the antigen

presenting cell is selected from the group consisting of a dendritic cell, a Langerhans cell, a monocyte, a mononuclear phagocyte, a macrophage, a Kupfer cell, a microglial cell, an osteoclast, and a bone marrow-derived leukocyte.

87. The method of claim 82, wherein the antigen is a purified antigen.

88. The method of claim 87, wherein the antigen is an antigen of a transplant organ.

89. The method of claim 88, wherein the transplant organ antigen is allogeneic antigen, a syngeneic antigen, or a xenogenic antigen.

90. The method of claim 82, wherein the antigen is a crude cell extract.

91. The method of claim 90, wherein the antigen is an antigen of a transplant organ.

92. The method of claim 91, wherein the transplant organ antigen is allogeneic antigen, a syngeneic antigen, or a xenogenic antigen.

93. The method of claim 82, wherein the antigen is selected from the group consisting of a peptide, a carbohydrate, a lipid, a glycoprotein, a glycolipid and a lipoprotein.

94. The method of claim 82, further comprising delivering at least one stimulatory cytokine with the antigen to the cytoplasmic matrix of an antigen presenting cell which comprises in step (a) filling the particle with the stimulatory cytokine.

95. The method of claim 94, wherein the cytokine is IL-12, G-CSF, IL-4, GM-CSF or interferon gamma.

96. The method of claim 82, wherein the immunity suppressed is immunity against a transplanted organ or tissue.

97. The method of claim 82, wherein the immunity suppressed is immunity against organs of the subject.

98. The method of claim 82, wherein the disease is an autoimmune disease or rejection of a transplanted organ or tissue.

99. A method of delivering an antigen to an Class I MHC receptor to supress immunity against the antigen in a subject having a disease which comprises:

a) filling particles with the antigen and ATP resulting in an antigen- and ATP-filled particles (Ag/ATP-filled particles);

b) coating the Ag/ATP-filled particles of step (a) with a ligand for an antigen presenting cell resulting in a ligand-coated Ag/ATP-filled particles;

c) incubating the ligand-coated Ag/ATP-filled particles of step (b) with isolated ligand-binding antigen presenting cells (APCs) under conditions permitting the ligand-binding APCs to bind to the ligand-coated Ag/ATP-filled particles and APC phagolysosomes to ingest the ligand-coated Ag/ATP-filled particles to facilitate transfer of the ingested antigen from the phagolysosomes into cytoplasm such that the antigen is delivered to a Class I MHC receptor and is expressed on the surface of the APCs (Ag-APCs); and

d) administering the antigen presenting cells (APCs) of step (c) to a subject having the disease so as induce Class I MHC presentation and elicit suppressor T-lymphocytes so to supress immunity against the antigen in the subject.

100. The method of claim 99, wherein the particle is a type O red blood cell ghost.

101. The method of claim 99, wherein the particle is a liposome.

102. The method of claim 99, wherein the ligand is selected from the group consisting of an immunoglobulin (IgG), complement component C3b, complement component C3bi, maleic anhydride, an oxidized lipid, a sugar, and a polyanion.

103. The method of claim 99, wherein the antigen presenting cell is selected from the group consisting of a dendritic cell, a Langerhans cell, a monocyte, a mononuclear phagocyte, a macrophage, a Kupfer cell, a microglial cell, an osteoclast, and a bone marrow-derived leukocyte.

104. The method of claim 99, wherein the antigen is a purified antigen.

105. The method of claim 104, wherein the antigen is an antigen of a transplant organ.

106. The method of claim 105, wherein the transplant organ antigen is allogeneic antigen, a syngeneic antigen, or a xenogenic antigen.

107. The method of claim 99, wherein the antigen is a crude cell extract.

108. The method of claim 107, wherein the antigen is an antigen of a transplant organ.

109. The method of claim 108, wherein the transplant organ antigen is allogeneic antigen, a syngeneic antigen, or a xenogenic antigen.

110. The method of claim 99, wherein the antigen is selected from the group consisting of a peptide, a carbohydrate, a lipid, a glycoprotein, a glycolipid and a lipoprotein.

111. The method of claim 99, further comprising delivering at least one stimulatory cytokine with the antigen to the cytoplasmic matrix of an antigen presenting cell which comprises in step (a) filling the particle with the stimulatory cytokine.

112. The method of claim 111, wherein the cytokine is IL-12, G-CSF, IL-4, GM-CSF or interferon gamma.

113. The method of claim 99, wherein the immunity suppressed is immunity against a transplanted organ or tissue.

114. The method of claim 99, wherein the immunity suppressed is immunity against organs of the subject.

115. The method of claim 99, wherein the disease is an autoimmune disease or rejection of a transplanted organ or tissue.

116. A method of delivering an antigen to an Class II MHC receptor to supress immunity against the antigen in a subject having a disease which comprises:

a) filling particles with the antigen and ATP resulting in an antigen- and ATP-filled particles (Ag/ATP-filled particles);

b) coating the Ag/ATP-filled particles of step (a) with a ligand for an antigen presenting cell resulting in a ligand-coated Ag/ATP-

filled particles;

c) incubating the ligand-coated Ag/ATP-filled particles of step (b) with isolated ligand-binding antigen presenting cells (APCs) under conditions permitting the ligand-binding APCs to bind to the ligand-coated Ag/ATP-filled particles and APC phagolysosomes to ingest the ligand-coated Ag/ATP-filled particles to facilitate transfer of the ingested antigen from the phagolysosomes into cytoplasm such that the antigen is delivered to a Class II MHC receptor and is expressed on the surface of the APCs (Ag-APCs); and

d) administering the antigen presenting cells (APCs) of step (c) to a subject having the disease so as induce Class II MHC presentation and elicit suppressor T-lymphocytes so to supress immunity against the antigen in the subject.

117. The method of claim 116, wherein the particle is a type O red blood cell ghost.

118. The method of claim 116, wherein the particle is a liposome.

119. The method of claim 116, wherein the ligand is selected from the group consisting of an immunoglobulin (IgG), complement component C3b, complement component C3bi, maleic anhydride, an oxidized lipid, a sugar, and a polyanion.

120. The method of claim 116, wherein the antigen presenting cell is selected from the group consisting of a dendritic cell, a Langerhans cell, a monocyte, a mononuclear phagocyte, a macrophage, a Kupfer cell, a microglial cell, an osteoclast, and a bone marrow-derived leukocyte.

121. The method of claim 116, wherein the antigen is a purified antigen.

122. The method of claim 121, wherein the antigen is an antigen of a transplant organ.

123. The method of claim 122, wherein the transplant organ antigen is allogeneic antigen, a syngeneic antigen, or a xenogenic antigen.

124. The method of claim 116, wherein the antigen is a crude cell extract.

125. The method of claim 124, wherein the antigen is an antigen of a transplant organ.

126. The method of claim 125, wherein the transplant organ antigen is allogeneic antigen, a syngeneic antigen, or a xenogenic antigen.

127. The method of claim 116, wherein the antigen is selected from the group consisting of a peptide, a carbohydrate, a lipid, a glycoprotein, a glycolipid

and a lipoprotein.

128. The method of claim 116, further comprising delivering at least one stimulatory cytokine with the antigen to the cytoplasmic matrix of an antigen presenting cell which comprises in step (a) filling the particle with the stimulatory cytokine.

129. The method of claim 128, wherein the cytokine is IL-12, G-CSF, IL-4, GM-CSF or interferon gamma.

130. The method of claim 116, wherein the immunity suppressed is immunity against a transplanted organ or tissue.

131. The method of claim 116, wherein the immunity suppressed is immunity against organs of the subject.

132. The method of claim 116, wherein the disease is an autoimmune disease or rejection of a transplanted organ or tissue.